



PRELIMINARY

# SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

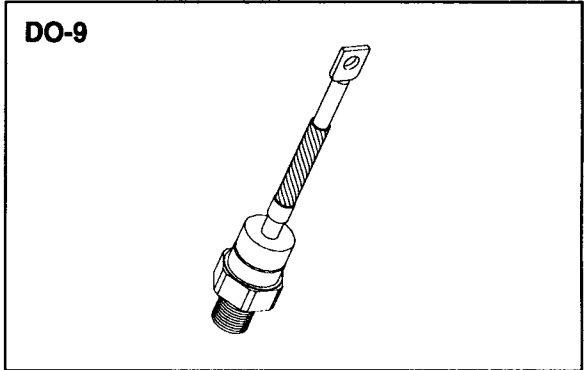
**SDR9600S10  
thru  
SDR9600S20**

## Designer's Data Sheet

### FEATURES:

- Forward current to 600 Amps
- PIV to 2000 Volts
- Transient Voltage rating of 200 Volts above PIV
- Pressure contact device
- Single Chip construction
- Low forward voltage drop
- Hermetically sealed
- For High Power applications
- For reverse polarity ad suffix "R"
- Fast Recovery version available (0.7 usec typical)
- Higher Voltage versions up to 5000 volts available
- TX, TXV, and Space Level Screening available

**600 AMPS  
1000-2000 VOLTS  
25µsec  
STANDARD RECOVERY  
HIGH CURRENT RECTIFIER**



## MAXIMUM RATINGS

RATING (Note 1)	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRRM	1000	Volts
	VRWM	1500	
	SDR9600S10	2000	
	SDR9600S15		
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	600	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	5000	Amps
Operating and storage temperature	Top & Tstg	-55 to +175	°C
Maximum Thermal Resistance Junction to Case	RθJC	0.14	°C/W

Note 1: Mounting force=1000 lbs

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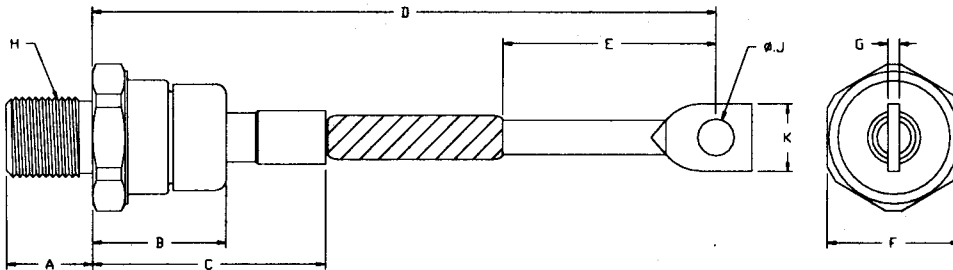
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**ELECTRICAL CHARACTERISTICS**

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 600 Adc pulse, TJ=25°C)	VF	1.25	Vdc
Instantaneous Forward Voltage Drop (IF = 600 Adc pulse, TJ= +175°C)	VF	1.20	Vdc
Reverse Leakage Current (Rated VR pulse, TJ=25°C)	IR	2	mA
Reverse Leakage Current (Rated VR pulse, TJ=175°C)	IR	40	mA
Reverse Recovery Time (IFM=600 A, VR=400V, di/dt= -25μs, Rs=10Ω, Cs=0.5μF, TA=25°C)	trr	25	μsec

**CASE OUTLINE: DO-9**



DIM	MIN	MAX
A	0.79"	0.83"
B	---	1.6"
C	---	2.25"
D	5.00"	6.00"
E	0.8"	2.2" typ
F	1.212"	1.250"
G	0.063"	0.172"
H	0.75-16UNF	
J	0.265"	0.350"
K	0.530"	0.755"

**TYPICAL OPERATING CURVES**

TA=25°C Unless otherwise specified

